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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
08/873,597	06/12/97	KAYYEM	J	A-64558-1/RF

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ROBIN M SILVA
FLEHR HOHBACH TEST ALBRITTON & HERBERT
FOUR EMBARCADERO CENTER
SUITE 3400
SAN FRANCISCO CA 94111-4187

EXAMINER	
HOUTTEMAN, S	

ART UNIT	PAPER NUMBER
1634	9

DATE MAILED: 09/30/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/873,597	Applicant(s) Kayyem
	Examiner Scott W. Houtteman	Group Art Unit 1634

☒ Responsive to communication(s) filed on *Aug 21, 1998* .

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-25* is/are pending in the application.

Of the above, claim(s) *1-18* is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *19-25* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *4 and 6*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. Applicant elects, without traverse, Group 2, claims 19-25 in the response filed 8/21/98. Claims 1-18 are withdrawn from further consideration by the examiner. See 37 CFR 1.142(b).

2. Claims 19-25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. There are two recitations of "covalently attached" in claims 19 and 20. It is unclear whether there are two distinct attachments or only one. For example, claim 19 recites "a covalently attached conductive oligomer covalently attached to . . . ." It may be that there are two attachments: one between the conductive oligomer and some unspecified support and another between the conductive oligomer and the single stranded nucleic acid. Alternatively, the two recitations of "covalent attachment could be referring to the same attachment. Clarification is required.

b. Claim 23 is indefinite in the recitation of "said electrode." There are two electrodes in the apparatus, a first and second measuring electrode. It is unclear to which electrode claim 23 refers.

c. Claim 25 is indefinite in the recital of "when g is zero, e is 1 and D is preferably. . .". First, the word "preferably" is unclear in this context. It is unclear whether this word is meant to impart some greater scope because certain embodiments are preferred, perhaps due to some greater scope of enablement. If this is not the case it is suggested that this word be deleted.

Second, it is unclear whether the definition of D is contingent on g being zero. On the one

hand, since "when g is zero" leads off this section of the claim one would assume that everything within this section, including the definition of D, is contingent on g being zero. Unfortunately, the claim allows g to be either zero or one and there is no definition of D when g is 1.

Another possibility is that "when g is zero" applies only to "e" and not to "D." The condition "g is zero"merely means that "e is 1." The definition of D is independent of the definition of g. Clarification is requested.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ribi et al., US Pat. 5,571568 (11/1996) filed 6/1995, effective filing date 6/15/89 (Ribi).

Ribi discloses an apparatus comprising a conductive oligomer, see for example col. 8, line 63 to column 9, line 7; including the heteroatom, nitrogen, see for example "amides, amino, etc," col. 4, lies 40-46.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 19-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ribi. In addition to the embodiments which are anticipated by Ribi, claim 19-25 encompass limitations such as "an AC/DC voltage source, for examle capable of delivering 1 Hz to 100 kHz frequencies and a processor coupled to the electrode.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to combine the Electronic elements of Ribi, see for example the section starting on col. 9, line 65, with components common to electronic equipment, appropriate power supplies and data displays.

6. Papers relating to this application may be submitted to Technology Center 1600 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 1600 Fax numbers are (703) 305-3014 and 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Houtteman whose telephone number is (703) 308-3885. The examiner can normally be reached on Tuesday-Friday from 8:30 AM - 5:00 PM. The examiner can also be reached on alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached at (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0196.

Scott Houtteman
September 30, 1998

SCOTT W. HOUTTEMAN
PRIMARY EXAMINER